

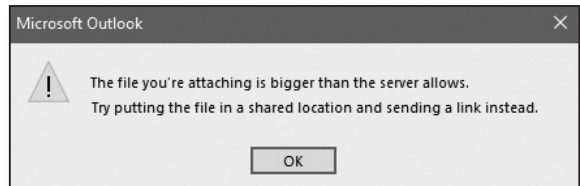
How to Send Large Files via Email

Discover the Problems and Solutions for Sending Large Files by Email

This article shows you:

- The size restrictions on email messages
- How to check the size of a message you're sending
- Helpful alternatives to sharing large files by email

You want to send someone a large Word document containing images, or a high-quality video, or a collection of digital photos. The obvious method is to attach the files to an email message... but is it going to work?



Not necessarily: the email service wasn't really designed to be a file-transfer system and it can't handle large attachments. In this article, I'll explain the limitations of email for this purpose, and suggest some practical alternatives you can use to get your files to where they're supposed to go.

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The Perils of Sending Large Email Attachments

Attaching files to an email message is easy...

One of the great benefits of email is that you're not limited to simply writing text. By clicking a button marked **Attach** or **Attach File** (usually denoted by a paperclip icon), you can select one or more files from your computer to send with your email message.

... but it isn't always reliable!

In many ways, it's much the same as popping a few photos into the envelope with a handwritten letter. The crucial difference is that you don't have to pay for postage when you send an email message, so you might be tempted to attach a very large file – or a large quantity of files – to a message. But whereas the postal services will deliver just about anything if you've paid enough for it, the same isn't true of the email system:

Files may be too large to send...

- **Sending may fail**

Email messages over a certain size won't be accepted by your email service. If the amount of data you're trying to send exceeds the amount your email service is willing to transfer, it will refuse to accept it. Your message won't be sent, and you may not even receive an error message to tell you what happened.

... or to receive

- **Receiving may fail**

Even if your large email message does get sent successfully, you can't be sure the recipient's email service will accept a message of that size. In addition, because the Internet works by passing data along a chain of computers, any one of the computers in the chain may decide that your email message is too large and refuse to pass it on.

The transfer is slow

- **Slow to send and receive**

A very large email message could take quite a while to be sent from your computer. More importantly, it

could take a long time for the recipient to download it when arrives, which could be annoying if it arrives at the wrong moment.

- **Unwanted costs**

If the recipient has to pay for the data he receives via the Internet, or has a very low monthly usage allowance, he may be less-than-thrilled by the surprise arrival of a multi-megabyte email message. It costs him money, or it uses up a valuable chunk of his free allowance and takes him closer to the point at which he has to start paying.

It may incur charges

- **Clogging up the mailbox**

Everyone who uses email has a mailbox (effectively their own personal folder) on the server where their incoming email messages wait to be collected. This mailbox has a maximum size, and the huge message you've sent could occupy a large proportion of this available space. At worst, your message could fill up this mailbox, causing the server to reject any further messages until the recipient collects your message.

Large attachments can fill up the mailbox

- **Treated as spam**

Very large email messages are sometimes treated as spam and rejected or deleted on arrival. This is related to the 'clogging' problem noted above: a huge message can be viewed as a malicious attempt to clog someone's mailbox and make it impossible for him to receive legitimate messages.

Rejected as junk mail

How Email Message Size is Restricted

As you can tell from the points above, the email system imposes some restrictions on what you can send. If you're hoping to send very large email attachments, there are three limitations that can thwart you:

Some email programs won't let you attach very large files

- **Limitation 1: your email program**

If you use an email program such as Windows Live Mail, Mozilla Thunderbird or Microsoft Outlook, it may well impose a size limit on your message. For example, if you try to add attachments totalling over 20 MB to a message in Microsoft Outlook, you'll see a warning that the file you're attaching is bigger than the server allows. In fact, that warning isn't quite truthful: Outlook doesn't know what the server allows, but it's trying to ensure you don't fall foul of Limitation 2 below.

Email services won't send large messages

- **Limitation 2: your email service**

Whether you use an email program or you use an online email service like Google Gmail or Yahoo! Mail, the next limitation you encounter is the maximum size of an email message accepted for delivery by your email service. Although that maximum size varies from one service to another, they'll all refuse to let you send a message that exceeds their limit.



Why do they impose a size limit? It's not to make life difficult for ordinary email users, but a security measure to protect their own systems. If they didn't do this, anyone with a grudge against the service could bring it to its knees by constantly bombarding it with vast email messages to deliver. By simply turning away any message over a certain size, the service avoids falling victim to this type of attack.

Your message may not be received

- **Limitation 3: the recipient's email service**

Your recipient's email service usually imposes two limitations. First, it will often refuse to accept an email message over a certain size. Second, as I mentioned above, the recipient's mailbox will have a maximum size. If the mailbox is already full, all incoming messages will be turned away. If it isn't full, any message that would take it over that size limit will be rejected.

Size limits of the popular email services

So what exactly are these limits? The table below outlines the maximum sizes for messages you can send using the top three webmail services and the three most popular Internet Service Providers, along with their maximum mailbox sizes:

Maximum message and mailbox sizes

Email service or ISP	Maximum message size	Maximum mailbox size
Google Gmail	25 MB	15 GB
Outlook.com	10 MB	Unlimited
Yahoo! Mail	25 MB	1 TB (1000 GB)
PlusNet	100 MB	1 GB
Sky Broadband	25 MB	100 MB
TalkTalk	15 MB	500 MB

You'll notice that the three webmail services (at the top of the table) offer far larger mailboxes than the three ISPs (at the bottom), and there's a good reason for this. If you use a webmail service, all your email is stored online: if someone sends you a 10 MB email message, and you choose not to delete it, it will forever occupy 10 MB of your available space. Therefore, these services have to provide more storage space for your mailbox.

Webmail services offer larger mailboxes

If your email account is provided by your ISP, you probably use an email program which downloads your latest messages every day or so. Once your email program collects the messages, it deletes them from your mailbox, leaving it empty. Therefore, your ISP only has to provide enough storage space to hold a couple of weeks'-worth of messages (catering for times when you go on holiday, for instance, and don't collect your email).

Your email program should empty your mailbox

In general, all these services can receive messages that are at least as large as those they can send. Therefore, if you use Google Gmail, for example, you should be

The effects of the maximum message sizes

able to send a 20 MB email message to a Sky Broad-band customer and have it received successfully.

To take another example, if you're a PlusNet customer, you should be able to send a 50 MB message to another PlusNet customer. However, if you sent that message to someone using one of the other services in the table above, it would probably be rejected.

In practice: the maximum safe message size

Other servers in the chain may reject your message

Unfortunately, as is so often the case in computing, there's a catch to the size limits given above. Unless you're sending your message to someone who uses the same email service as you, your message will be sent out over the Internet, travelling through a chain of computers to its destination. Along the way, it may well encounter a computer that won't accept a message of this size, whereupon your message is stopped in its tracks and returned to you.

Practical maximum size: 10 MB

In many situations, then, the message sizes published by email services are irrelevant. Instead, it's best to stick to a simple rule: regard 10 MB as the maximum size for any email message.

It's generally accepted that the entire email system can handle messages of up to 10 MB in size, and that messages any larger than that can get stopped along the way – either bouncing back to you or simply being deleted altogether.

Check First: How Big is the Message You're Sending?

As if that 10 MB size limit isn't bad enough, there's another catch: email attachments are bigger than you think they are!

An oddity of the email system is that it can only transmit text. This means that any files you attach to an email message have to be converted to a special text format (known as 'MIME') as they're being sent. This conversion process inflates the size of the attachments by about one-third (33%).

The upshot is that you may think you've attached exactly 10 MB of files to an email message, but you haven't. When those files are converted to MIME, they expand to over 13 MB – perhaps enough to prevent your message from arriving!

This means that when you're attaching files to an email message, you need to consider what this final 'expanded' size will be. After adding up the sizes of all the files you've attached, you have to add about a third to that total (or multiply it by 1.33).

Total size of attached file(s)	Final size of message being sent (approx.)
1 megabyte	1.4 megabytes
2 megabytes	2.7 megabytes
5 megabytes	6.7 megabytes
7 megabytes	9.3 megabytes
10 megabytes	13.4 megabytes
15 megabytes	20 megabytes
18 megabytes	24 megabytes
20 megabytes	26.6 megabytes

You might have noticed that we're only considering the size of the attachments and we're ignoring the text you've written in the message itself. The reason for this is that the size of the text is negligible. Whether you've written one short paragraph or six long paragraphs, it won't add up to enough to make any significant difference to the message's size.

Attachments are encoded for sending by email

Encoding makes your message even bigger!

Add the file sizes and multiply by 1.33



Keeping this in mind, here's how to check the size of an email message before you send it using some of the most popular email programs and webmail services:

Microsoft Outlook or Windows Live Mail:



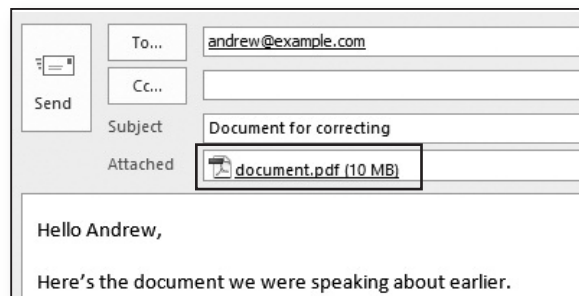
1. Start the program, go to the **Home** tab on the Ribbon, and in the 'New' group click the **New Email** button (in Outlook) or the **Email message** button (in Windows Live Mail).
2. Compose your email message in the usual way, selecting recipients in the **To** box, typing a description of your message in the **Subject** box and typing the text of the message.

Attach files

3. On the **Message** tab of the Ribbon, in the 'Include' or 'Insert' section, click the **Attach file** button. In the dialog that opens, navigate to the folder containing the file(s) you want to attach, select one or more files and click **Insert** (in Outlook) or **Open** (in Windows Live Mail). The file(s) you chose will be attached to your email message.

Tot up their sizes

The file you've added appears alongside the word **Attached** (in Outlook) or beside the paperclip icon (in Windows Live Mail). Beside each filename you'll see the size of the file in brackets. In the example pictured below, the attached file is 10 MB in size, making our message roughly 13.4 MB when sent.



If you want to attach more files to the message, repeat step 3 as often as needed. You'll have to add up the sizes of the files and then multiply that figure by 1.33 to determine the final size of the message you're sending.



Mozilla Thunderbird:



1. Start the program and click the **Write** button on the toolbar to compose a new email message.
2. Compose your message in the usual way, selecting recipients, typing a subject line and then writing your message.
3. Click the **Attach** button on the toolbar. In the dialog that appears, navigate to the folder containing the file(s) you want to attach, select one or more files and click **Open**.



Choose files to attach

4. The file you've added appears in a large box to the right of the 'To' and 'Subject' fields. Helpfully, as well as showing the names and sizes of each individual file, Thunderbird also shows you the total size of the files you've attached at the top above the box. (As always, remember to multiply this figure by 1.33 to determine the final size of the message you're sending.) If you want to attach more files, repeat step 3 as often as necessary.

Thunderbird shows their total size

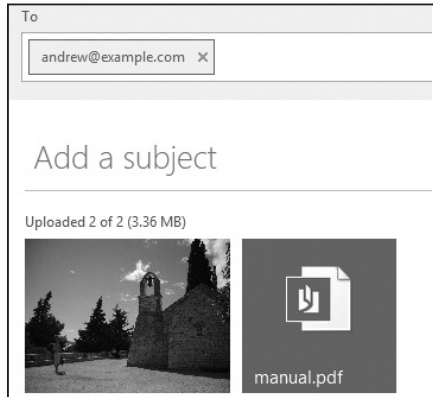
2 attachments		5.6 MB
	IMG_0697.jpg	4.4 MB
	IMG_0688.jpg	1.2 MB

Outlook.com:

1. First, start your favourite web browser, visit www.outlook.com and log into your account.
2. Click the **New message** button on the blue toolbar at the top of the page to begin composing a new email message. Enter recipient details, type a subject and write your message in the usual way.



- Select files to send*
3. Click the **Attach** button on the blue toolbar and then click **Browse this computer**. In the dialog that appears, navigate to the folder containing the file(s) you want to attach, select one or more files and click **Open**.
- Check the total size shown*
4. The files you've selected appear as large icons (or as thumbnails for photos) below the subject field. Above these icons, Outlook.com tells you the number of files you've attached and their total size. To add more files, repeat step 3 as often as necessary.



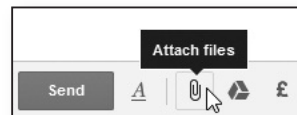
Google Gmail:



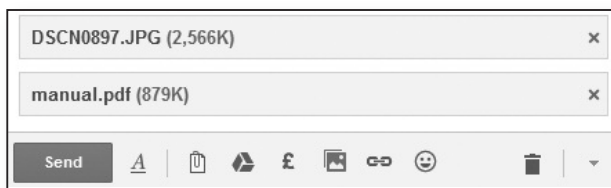
1. First, start your favourite web browser, visit www.gmail.com, click **Sign in** at the top of the page and log into your Gmail account.
2. Click the **Compose** button above the folder list on the left. Enter recipient details, type a subject and write your message in the usual way.

Click the paperclip button

3. At the bottom of the message window, click on to the paperclip icon. In the dialog that appears, navigate to the folder containing the file(s) you want



to attach, select one or more files and click **Open**. The names and sizes of the files you've attached appear in grey bars at the bottom of the message window.



Gmail shows the file sizes in kilobytes (indicated by a 'K') rather than megabytes, which isn't as helpful as it could be. To tot up the total size of your message, assume that 1000 kilobytes equals one megabyte. In the example above, therefore, the two files add up to 3445 K, which is roughly 3.5 MB.



4. If you want to add more files to your message, repeat step 3 as often as necessary.

Six Tips for Sharing Large Files Successfully

Over the preceding pages I've explained the pitfalls you face when trying to send large files (or a large number of files) via email, and how to check the total size of an email message before you send it. However, this doesn't mean that it's impossible to use the Internet to share large files with friends, family and colleagues. Whenever you need to do that, just read through the following tips and at least one of them should help you.

Tip 1: split files over several email messages

This tip won't help if you're trying to send one very large file, but if you need to send multiple files totalling more than 10 MB and you're determined to do it by email, this is the most reliable way to do it.

The message is too big? Try one of these tips instead

Send several smaller messages

Compose one email message and attach a few files to it, making sure you stay below that 10 MB threshold. (You might like to add a note in this message to tell the recipient you'll be sending more files in further email messages so they can look out for them.)

Having sent this message, you can then start another, attaching the next few files to that, and continue doing this until all the files have been attached to email messages and sent. By doing this, you're neatly sidestepping the size restriction on individual email messages while still sending all the files you need to send.

Tip 2: shrink digital photos

Two or three photos might be the limit for one message

The photos you take with your digital camera or smartphone are probably between 2 MB and 5 MB each, and at that size you can't reasonably attach more than a handful to a single email message without exceeding that 10 MB limit.

Resize the photos to make them smaller

However, the photos you're sending are also far larger than the recipient's computer screen, and that's unnecessarily big. If you shrink each photo to about 25% of its current dimensions before attaching it to your message, the photos will still appear at a good, clear size on the screen, but their file sizes will drop by about 80%. In other words, for each full-sized photo you're trying to send, you could probably attach four or five of these smaller versions.



Any good photo editor will resize a photo, but if you're stuck, try the Paint accessory in Windows.

After opening your photo, click the **Resize** button on the Ribbon. Choose **Percentage** and type **25** into the **Horizontal** box (the other box will automatically change to match it) and click **OK**.

Finally, choose **File > Save As > JPEG picture** and save your resized photo with a slightly different name to the original.

Tip 3: use a zip file to compress large files

A zip file is an unusual type of file which is designed to contain other files. In many ways, it's rather like a folder (and Windows refers to a zip file as a 'Compressed Folder'), but it has one important difference: the files you put in a zip file are compressed to make them considerably smaller.

If you need to send one large file, or a collection of smaller files which are edging over the 10 MB mark, try creating a zip file containing those files and checking whether this compression feature has produced a file that's small enough to send.

A zip can be smaller than the sum of its contents

A drawback to this tip is that many of the files you might like to send by email are already compressed. Digital photos, music files and videos, among others, use compression, so putting them in a zip file may not reduce their sizes any further.

However, don't ignore the second benefit of zip files: the fact that you can place any number of files into a single zip file. If you follow Tip 5 or Tip 6 below, for example, using a zip file to share a collection of files gives you just a single file to upload, and means your recipient will have just one file to download.



Tip 4: share photos in an online album

If you want to share a number of digital photos, there's a neater way to do it than sending them by email: create your own online photo album!

There are various free photo album services online, but a good choice is to use Google Photos. You'll need a free

Try sharing with Google Photos

Google account, which you can set up at accounts.google.com/signup if you don't yet have one. Having done that, sign into Google Photos by visiting photos.google.com/login.

Create a shared photo album

Click **Create > Shared album**, type a title for your album and click **Add photos**. You can then add photos to this album by clicking **Select from computer** or simply by dropping them into the window.

Send a link to your album in an email

When you've added all the required photos, click **Share** in the top-right corner. Type the email address of the person with whom you want to share this album and press **Enter**, type a personal message and click the **Send** button. That person will receive an email inviting them to visit your album, and they'll be able to download any of the album's photos to save and keep.

Tip 5: share any file from a cloud-storage service

Use OneDrive, Dropbox or Google Drive

One of the most reliable ways to share large files is by using a cloud-storage service such as Dropbox, Google Drive or Microsoft OneDrive. These services are primarily used for storing files for your own use – as a quick way to make them available on all your computers, or to ensure you'll have access to them from any computer when you're away from home – but they also allow you to share individual files or entire folders with anyone you choose.

Plenty of space for large files

Both OneDrive and Google Drive give you up to 15 GB of space in which to store your files. Dropbox gives you only 2 GB, but unless you really do want to share a large number of huge files, that should still be plenty!

Each of these services requires you to set up a free account, so which one you plump for might depend on whether you already have a suitable account: if you use Google Gmail, for example, the same account gives you

access to Google Drive; if you have a Microsoft account (perhaps used for Outlook.com or to log into a Windows 10 or Windows 8.1 PC), you use that account to log into OneDrive.

The routine is much the same for each service. After using your web browser to visit the service and log in, you select and upload your files, select the option to share them with others, and the service generates a link which you can send to people by email.

Send your friends a link by email

If you want to share a number of files using a cloud-storage service, you have two options. One is to create a folder on the service's website, upload your files to that folder and then share the whole folder. The other is to create a zip file on your computer containing all the files you want to share and then upload that and generate a link to share it. By using a zip file, your recipients have only one file to download, rather than having to work through your folder downloading all the files it contains one by one.



Tip 6: use a file-sending service

The problems associated with sending large files have been around for decades, and a number of services have sprung up to take the pain out the process. In many ways, they are the forerunners to the cloud-storage services covered in Tip 5, but these services are expressly designed for quick and easy file sharing.

Quick and easy file sharing

One of the simplest is WeTransfer, since it doesn't ask you to set up an account first, and it allows you to transfer up to 2 GB of files at a time. To use it, just follow these steps:

Send links to files using WeTransfer

1. First, start your favourite web browser and go to www.wetransfer.com.

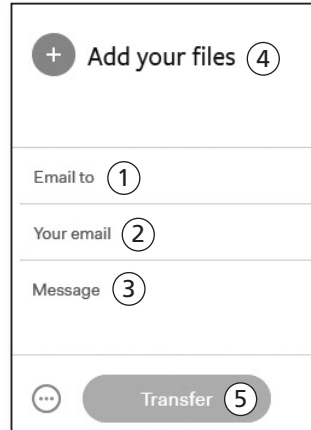


- In the little panel towards the left of the page, click on **Email to** ① and type the address of the person to whom you want to send files. Press **Enter**, and optionally type more email addresses, pressing **Enter** after each.

- Click on **Your email** ② and enter your own email address, then click on **Message** ③ and type a personal message.

Add up to 2 GB of files to share

- Click on **Add your files** ④. In the dialog that opens, navigate to the folder containing the file(s) you want to send, select one or more files and then click **Open**. To send more files, perhaps from different folders, click on **Add more files**.



Your contacts receive a link to the files you sent

- Finally, click the **Transfer** button ⑤. WeTransfer will send an email message to your recipients telling them you sent them some files.

Your recipients have up to seven days to click the **Download** link in the message, which takes them to a web page on the WeTransfer website where they can download the files you shared. (After seven days, the WeTransfer service will delete the files.) The service will also send you an email confirming that your files have been shared, and another email to let you know when someone downloads one.